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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/591,560	06/09/2000	Emad N. Farag	2925-0326P	3532
30594	7590	02/18/2005	EXAMINER	
HARNESS, DICKEY & PIERCE, P.L.C.			CHANG, EDITH M	
P.O. BOX 8910			ART UNIT	PAPER NUMBER
RESTON, VA 20195			2637	

DATE MAILED: 02/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/591,560	Applicant(s) FARAG ET AL.	
	Examiner Edith M Chang	Art Unit 2637	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, '1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 July 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments/Remarks

1. Applicant's arguments, see pages 10-11, filed on January 18, 2005, with respect to the rejection(s) of claim(s) 1, 4-6, 8, 10, 13 and 16 under USC 102 and claims 7, 9, 11 and 15 under USC 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Hutchison, IV et al.

Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Drawings

2. Figures 1 to 3 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

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3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art Figures 1-3 of the instant application in view of Hutchison, IV et al. (US 5,790,589).

The prior art Figure 2 discloses an acquisition search window (block 204) during an inactive period (block 202 transmission stop) is wider than the standard search window (block 200) during an active period (block 206 transmission restart). The detail descriptions of the prior art Figures 1-3 are discussed on pages 1-7 in the background of the invention. Clearly, the prior art Figures 1-3 teach all the subject matter as recited in claims 1, 4-11, 13 and 15-16. The prior art Figures 1-3 fail to show or suggest that an adaptive search window associated with the inactive period.

However, as shown in the flowchart of FIG.3, Hutchison teaches the adaptive search window to extend the search window initial start point (block 50) and end point (block 48) by PN spaces/chips (column 9 lines 1-7) during the inactive period at which time the contact is lost, when the pilot is not detected in the pilot requiring (block 36).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to adopt a method as taught by Hutchison, so that when the transmission is not restarted (206) in the prior art Figure 2 of the instant application, it is necessary to advance the window end point or retard the window start point alternatively as taught by Hutchison in

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order to achieve the goal of having an adaptive search window associated with the inactive period.

With respect to **claims 2-3, 12 & 14**, in FIG.2, Hutchison teaches the initial search window 33 with initial start point W_{os} (chip number 6) and initial end point W_{oe} (chip number 8) as stated in column 8 lines 43-47; and in FIG.3 the adaptive search window associated with the inactive period.

In FIG.3, when $n=0$ set the initial search window (block 34, column 8 lines 4-9 & lines 37-40);

Regarding the end point of the window:

At block 36, if the contact is lost (inactive, block 36), increase n by 1 (block 40, now $n=1$), if n is odd (YES, block 46), then increase the ending point by PN space to advance previous windows (block 48) that is the initial end point extended from chip number 8 to chip number 9 (column 8 lines 43-54 wherein the Δchip , the increment/decrement, is arbitrary), after setting the new window with the new end chip number 9, go to block 36;

Regarding the start point of the window:

If contact is lost again, n is increased by 1 to an even number ($n=2$, NO, block 46), then decrease the start point by PN space to retard along the PN sequence (block 50, column 8 lines 55-59) that is the initial start point decreased from the initial start chip 6 by the PN spaces (Δchip). This iterative spiral searching method is repeated with increasingly divergent alternating advance and retarded search window by advancing the end point of the window along the PN sequence and retarding the start point of the window along the PN sequence (Abstract lines 10-15).

Hutchison provides the start point and end point of the window as recited in the claims 2, 12 and 14, wherein the t is the PN space or chip, the start point of the window W_s equals the initial start W_{os} decreased by $n/2$ of PN spaces so the W_s can be represented by $W_{os} - kt$, when the $W_{os} - kt$ reaches zero W_s is set to zero, since the PN chip number starts from zero, wherein the k depends the system and the environment of the receiver that define the n repeats (column 2 lines 52-60), hence k is a design choice. In the advancing end point side, the end point of the window $W_E =$ the initial end point $W_{oe} + kt$, and the maximum of the end point of the window is the radius of the cell associated with the receiver (see page 5, lines 17-19 of the instant application).

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edith M Chang whose telephone number is 571-272-3041. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jayanti Patel can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

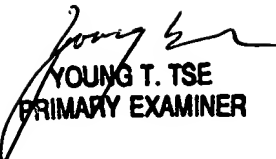
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Edith Chang

February 11, 2005


YOUNG T. TSE
PRIMARY EXAMINER